Light Fund Overview

Mission Statement

The mission of Concord Municipal Light Plant is to supply reliable and cost effective energy services, in a responsible and courteous manner, which meets the current and future needs of our customers.

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Light Fund Highlights

- The cost of purchased power, a pass-through expense to the customer, makes up approximately 74% of operating expenditures. For 2014, power supply contracts have been negotiated with Constellation Energy NextEra, and NextEra Peak Energy.
- •The Light Plant has a three-tiered rate schedule for residential customers to encourage conservation; the more electricity that a customer uses the higher the rate.
- •Electricity from renewable energy sources equals approximately 14% of all purchased power. The Light Plant Board's goal is to increase the percentage of renewable energy to 30% by 2020.
- •Starting in 2014, CMLP is offering broadband service to residences and businesses by using extra capacity available in the fiber optic cables installed as part of the Smart Grid program.

Operating and Net Income Summary						
				2013	2014	
	2011 Actual	2012 Actua		Preliminary	Budgeted	
Operating Income	\$ 1,247,093	\$ 1,565,	515	\$ 3,425,745	\$ 2,213,519	
Net Income	\$ 1,810,770	\$ 1,900,4	451	\$ 3,947,450	\$ 2,657,284	
		Town Manage	er			
		CMLP Directo		_		
		CIVILP DIrecto	or			
Г		 [Ç	Senior Administrativ	ve Assistant	
Manage	ement	1 1				
Power Supply and F		IП		Telecom		
Customer Services			Chief Information Officer			
Energy Services Ad	lministrator		Telecom Coordinator			
Building Maintenand		1 1 1	Telecom Network Technician			
Senior Department		l I .				
	(=)			Business Admir	nistration	
Meter Op	<u>erations</u>	1 H	Fina	ancial Administrator		
Meter Supervisor			Utili	ty Software Coordi	nator	
Meter Technician			Offic	ce Accountant		
Utility Electrician		J L	Sen	ior Account Clerk (.75)	
	A:	ssistant Direct	tor			
Г		. .				
Line Ope	erations erations			Senior Accoun	t Clerk	
Line Supervisor		,				
Lead Line Worker (3	3)	Design & Engineering			neering	
Line Worker (5)		Electrical Engineer				
Master Mechanic				I Engineer		
Crew Leader				nior Engineering Te		
Equipment Operator	r	Engineering Technician				

Description

The Concord Municipal Light Plant (CMLP) is responsible for providing electricity to more than 7,800 residential, municipal, and business customers throughout Concord. Since the Light Plant does not have generating capability, it purchases its power from outside suppliers. To distribute the electricity, the CMLP operates three substations along with transmission and distribution facilities. Power lines are maintained by CMLP line workers. To monitor the system, the Light Plant has a modern, consolidated operations center. In addition, the CMLP staff is responsible for reading electric and water meters, and for providing customer service.

As a Town Enterprise, the Light Plant is supported by revenue raised from electric utility rates paid by its customers. Current resources are allocated to pay for the upkeep of existing substations and power lines.

A new Telecommunications Division within CMLP has been established to provide broadband service to residences and businesses. This Division is run by the Chief Information Officer, who reports to the CMLP Director.

Light Fund Overview

The Concord Municipal Light Plant is

committed to providing the Town with reliable power while decreasing the Town's dependence on electricity generated from fossil fuels. CMLP has upgraded its transformers and increased the pass-though capacity of its power grid. At the same time, CMLP has set a goal to obtain 30% of its electricity from renewable sources by 2020. In addition, the Light Plant has initiated programs and policies to encourage energy efficiency and conservation measures by its residential and commercial customers.



Purchased Power: Energy and Capacity

Purchased power is comprised of two components: energy and capacity. To understand the difference, one can use the analogy of water distribution. Electrical energy (kilowatt hours) can be compared to the amount of water consumed (gallons) over time. Electrical capacity (megawatts or more precisely mega volt amperes that includes power lost during distribution) can be compared to the size of the water pipe or the capacity to deliver water (i.e. the larger the pipe the more water it can carry). So energy has to do with consumption over time while capacity measures the amount of electricity delivered at any one moment. The Town must purchase both.

With the past configuration of Concord's power grid, the Town had a capacity limitation of 50 mega volt amperes (mva); the substation which acts as a gateway for electricity coming into the Town had two redundant transformers each capable of handling 50 mva. With historic electricity demand just under 50 mva, if demand became greater than 50 mva, this event could trigger a delivery failure or brown-out. With the passage of Article 28 of the 2012 Annual Town Meeting, the Light Plant was authorize to borrow funds to switch out the 50 mva transformers with 70 mva transformers. The total cost of the project was approximately \$3.7 million.

Purchased Power: Power Supply Portfolio (14% from Renewable Sources)

The current power supply portfolio consists of the purchase of electricity from the following sources:

- 75% from a contracts with Constellation Energy (32%), NextEra (23%), NextEra Peak Energy (18%), and Watson (2%),
- 14% from renewable sources including hydro (6%), landfill gas-fired (4%), wind (3%) and solar photovoltaic (1%), and
- 11% from spot market and purchased as needed on a daily basis.

Purchased Power: Local Conservation Initiatives

The Light Plant has initiated programs and policies to encourage energy conservation. The Smart Grid Infrastructure will allow CMLP to better manage its customers' electricity demands. A residential rate structure adopted in October 2009 has tiers in which users of lower amounts of electricity will pay a lower unit rate.

In addition to these internal programs and policies, the Light Plant provides home energy audits at no cost to residential customers and shares the cost of energy audits with commercial customers.

An active rebate program has been put in place by CMLP to promote local conservation initiatives. For residential and commercial customers, CMLP provides rebates for efficient lighting fixture upgrades and energy star appliance purchases. Additional rebates for residential customers are available for weatherization and central A/C efficiency projects.

Electricity Rate Revenue

The total revenue expected to be raised through electricity rates in 2014 is projected to be **\$25,369,635**, with \$11.5 million to be received from residential customers, \$12.2 million from commercial customers, and \$1.6 million from municipal customers.

Of a total of 172.5 mWh of electricity expected to be provided in 2014, it is forecasted that residential sales will be approximately 75.5 mWh, commercial 85.5 mWh, municipal 11.0 mWh, and street lighting 0.5 mWh. Usage varies with the weather, economic conditions, and other factors.

Electric Rate Highlights

•Effective on January 1, 2013, the residential rate (R-1) is set at a meter charge of \$8.05 per month for a single phase system and the following three-tiered energy rates: \$0.14327 per kWh for the first 1,400 kWh, \$0.15678 per kWh for the next 800 KWh, and \$0.17029 per kWh for additional kWh. In addition, there are surcharges for undergrounding, conservation, and power supply.

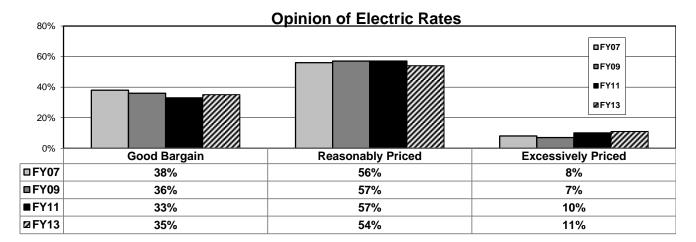
Surcharges

Each electric utility bill includes a 1.5% underground surcharge and a 0.52% Conservation and Renewable Energy Service (CARES) surcharge. The money raised through the underground surcharge is used to place power lines underground. As a result of this activity and in association with zoning requirements for new developments, the Town currently has approximately 50% of its power lines underground.

The Conservation and Renewable Energy Service surcharge is used for the energy conservation activities sponsored by the Light Plant. Funds from the surcharge provide assistance to customers for the purchase of more energy efficient systems and appliances.

Citizen Survey

In September 2006, November 2008, and September 2010, and November 2012, the Town conducted a telephone survey of over 300 randomly selected Concord residents. For the Light Plant, the following question was asked: "What is your opinion of the price of electric rates?" In FY13, the response was that 35% thought that the price is a Good Bargain and 54% thought that it is Reasonably Priced, and 11% thought it was Excessively Priced.



Program Implementation

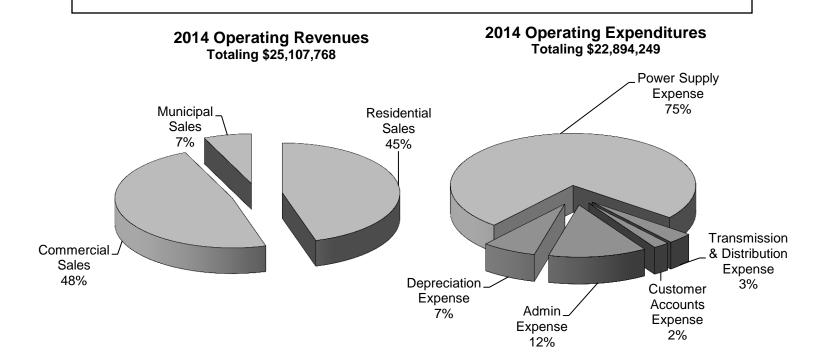
For Calendar Year 2014, the Concord Municipal Light Plant is projecting that it will have \$25.1 million in operating revenues and \$22.8 million in operating expenditures.

For revenues, funds collected from the sale of electricity are expected to decrease slightly from \$25.5 million in 2013 to \$25.3 million in 2014.

For expenditures, the primary cost is the power supply expense. From 2013 to 2014, it is forecast that the power supply expense will decrease from \$17.8 million to \$17.0 million. Purchased power expense is passed directly onto customers.

In 2014, the Light Plant is expected to have an operating income of \$2,213,519 and a net income of \$2,657,284. With the addition to the net income of the depreciation expense of \$1,631,778 and the subtraction of \$760,000 for debt principal repayment and \$460,250 for payment in lieu of taxes, the amount of current resources projected to be available for capital purposes is \$3,068,812.

From 2013 to 2014, the cost of the plant (the total worth of the CMLP capital assets) is projected to increase from \$55.0 million to \$56.5 million. As a result, the 2014 rate of return is projected to be 3.4% as compared to 5.8% in 2013.



OPERATING REVENUES

Calendar Year:	2011	2012	2013	2014
	Actual	Actual	Estimated	Budgeted
Sales of Electricity:				
Residential Sales	\$10,622,833	\$10,379,720	\$ 11,487,390	\$ 11,519,561
Commercial and Industrial Sales	13,077,922	12,027,372	12,335,133	12,181,133
Municipal Sales:				
Street Lighting	49,244	66,590	70,231	69,000
Lighting and Water Heating				
for Mun. Bldgs. & Reg. School	1,586,586	1,473,958	1,604,334	1,599,941
Miscellaneous Sales			8,489	
Operating Revenues Billed Total	\$25,336,585	\$23,881,051	\$ 25,505,577	\$25,369,635
Net Change in Unbilled Revenues	46,937	(37,180)	8,658	-
Provision for CARES	(201,950)	6,665	-	-
Provision for Rate Refund	(472,596)	853,040	1,031,827	155,903
Provision for Rate Stabilization	2,292,193	3,090,392	577,601	(611,320)
Other Operating Revenue	39,483	54,965	73,601	193,550
Operating Revenues Total	\$27,040,652	\$27,848,933	\$ 27,197,264	\$25,107,768

OPERATING SALES (kWh)

Calendar Year:	2011	2012	2013	2014
	Actual	Actual	Estimated	Budgeted
Kilowatt-hours Sold:				
Residential Sales	71,308,304	70,734,809	72,937,785	75,549,541
Commercial and Industrial Sales	95,601,881	89,293,307	82,548,671	85,504,449
Municipal Sales:				
Street Lighting	391,414	448,215	453,435	458,600
Lighting and Water Heating				
for Mun. Bldgs. & Reg. School	11,128,791	10,602,995	10,662,603	11,044,410
Electric Sales Billed Total	178,430,390	171,079,326	166,602,494	172,557,000

Source: 2011 & 2012 data are actual data from audited financial statements; 2013 data is estimated from the year ending on September 30, 2013; 2014 data is the budget adopted by the Municipal Light Board.

OPERATING EXPENSES (\$)

Calendar Year:		2011 ctual		2012 Actual	_	2013 Estimated	D	2014 Sudgeted
Operating Accounts:		ctuai		Actual		Stimated		dagetea
Power Supply Expense	\$20,	295,422	\$2	0,884,941	\$	17,864,824	\$1	7,055,637
Transmission & Subtrans. Expenses:								
Operation		6,439		4,265		1,938		5,000
Maintenance		97,126		103,289		89,921		86,484
	\$	103,565	\$	107,554	\$	91,859	\$	91,484
Distribution Expenses:								
Operation		173,656		207,664		197,581		192,182
Maintenance		425,539		429,107		506,666		484,801
	\$	599,195	\$	636,771	\$	704,247	\$	676,983
Customer Accounts Expenses:								
Supervision		5,337		5,340		6,470		6,500
Meter-reading Labor and Expenses		2,579		645		757		1,000
Billing, Collecting, & Assoc. Costs		143,959		165,714		166,623		170,000
Uncollectible Accounts		12,025		39,378		25,424		22,364
Customer Information Services	;	312,431		313,841		451,285		282,422
	\$	476,331	\$	524,918	\$	650,559	\$	482,286
Administrative & General Expenses:								
Operations:								
Administrative & General Salaries		887,189		915,555		964,629		967,161
General Fund Services	;	308,290		344,013		375,786		375,000
Office Supplies and Expense		65,928		64,271		63,410		65,500
Outside Services Employed	:	272,750		177,520		171,522		211,274
Property Insurance		44,962		44,718		46,322		48,000
Employee Pensions & Group Ben.	(666,160		368,538		419,473		615,978
Employee Training		48,445		39,429		31,360		50,311
Sick Leave/Vac. Leave/Holidays	;	351,663		407,222		360,680		336,121
Miscellaneous Expenses		41,757		103,153		258,712		59,236
Maintenance of General Plant		186,546		189,421		175,308		227,500
	\$ 2,	873,690	\$:	2,653,840	\$	2,867,202	\$	2,956,081
Operating Accounts Subtotal	\$24,	348,203	\$2	4,808,024	\$:	22,178,691	\$2	1,262,471
Depreciation Expense	\$ 1,	445,356	\$	1,475,394	\$	1,592,828	\$	1,631,778
								2,894,249

Source: 2011 & 2012 data are actual data from audited financial statements; 2013 data is estimated from the year ending on September 30, 2013; 2014 data is the budget adopted by the Municipal Light Board.

AUTHORIZED POSITIONS

			1 2012 June 20		1 2014 June 20	2015
		July	1, 2013 - June 30,	2014 July	1, 2014 - June 30,	2015
	B 20 T0	0 1	Fiscal Year 2014	. .	Fiscal Year 2015	Φ. Δ.
Code	-	<u>Grade</u>	# Positions	\$ Amount	# Positions	\$ Amount
	Light Plant Operations	-14	4	407.000	4	407.000
	Director	EM-4	1	127,903	1	127,903
	Assistant Director	EM-3	1	109,319	1	109,392
	Power Supply & Rates Admin	EM-3	1	93,392	1	93,392
	Electrical Engineer	EM-2	1	79,021	1	79,021
	Financial Administrator	MP-4	1	90,040	1	90,040
	Civil Engineer	MP-3	1	77,106	1	77,135
	Customer Service Admin	MP-3	1	72,408	1	72,408
	Energy Conservation Coord.	MP-3	1	75,658	1	75,658
	Meter Supervisor	EM-1	1	75,865	1	75,865
	Utility Software Coordinator	MP-2	1	66,992	1	66,992
	Senior Eng. Technician	MP-2	1	65,385	1	65,385
	Engineering Technician	MP-1	1	56,636	1	56,636
	Office Accountant	MP-2	1	62,758	1	62,758
	Sr. Administrative Assistant	ACL-5	1	57,692	1	57,692
	Sr. Account Clerk	ACL-3	1.88	98,789	1.88	98,789
	Sr. Department Clerk	ACL-3	1	46,636	1	46,876
	Line Supervisor	EL-6	1	97,447	1	97,447
	Lead Line Worker	EL-5	3	268,497	3	268,497
	Lineworker, Grade 1	EL-4	3	240,097	3	240,623
	Lineworker, Grade 2	EL-3	0		0	0
	Lineworker, Grade 3	EL-2	2	104,400	2	104,400
	Utility Electrician	EL-3	1	69,761	1	69,761
	Meter Technician	EL-2	1	56,481	1	56,481
	Master Mechanic	TCL-5	1	66,106	1	64,311
	Crew Leader	TCL-5	1	58,924	1	58,924
	Equipment/Line Operator	TCL-4	1	51,929	1	51,929
	Building Maintenance Cust.	TCL-2	1	47,361	1	47,878
	Telecommunications			,		,
	Chief Information Officer	MP-7	0.40	44,698	0.40	44,698
	GIS / Applications Manager	MP-4	0.20	15,421	0.20	15,421
	Telecom Coordinator	MP-4	1	73,430	1	73,430
	Telecom Network Technician	MP-2	1	58,000	1	58,000
	Information Syst. Asst.	MP-2	0.20	12,946	0.20	12,946
	FTE Subtota		34.68	\$2,521,098	34.68	\$2,520,688
	i i E dubiola	· •	01.00	Ψ2,021,000	01.00	Ψ2,020,000
	Line Worker Stand-by Pay		1320 hrs.	82,572	1320 hrs.	82,572
	Engineering Stand-by Pay		1020 1113.	31,320	1020 1110.	31,320
	Salary Subtota	.1		2,421,957		2,460,050
	Salary Subtota			2,421,937		2,400,000
Allov	vance for Salary Increases					100,828
517X	Group Insurance:					
	Health, Life, Dental			227,918		240,000
	Retirement			392,747		403,508
	OPEB Contribution			10,478		11,000
	Soc. Sec. & Medicare Tax			34,000		34,000
	Clothing Allowance			3,600		3,600
	Benefits Subtota	1		668,743		692,108
	Delients Subtota	•		000,7-0		002,100
	Personnel Services Tota	ı		\$3,090,700		\$3,252,986
	2 2 3 2 2 3 3 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7			+-,000,100	•	+-,,
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DEBT SERVICE

	FY12	FY13	FY14	FY15
	Actual	Actual	Rev. Budget	Estimate
Long Term Debt (Cash Basis):				
Principal	\$765,000	\$760,000	\$760,000	\$460,000
Interest	172,930	157,699	127,574	107,89
Totals	\$937,930	\$917,699	\$887,574	\$567,89
Calendar Year:		2012	2013	2014
	Actual	Actual	Estimated	Budgeted
Accrued Interest Expensed	\$160,922	\$167,288	\$121,293	\$189,76

PAYMENTS TO THE GENERAL FUND

own Fiscal Year Basis	FY12 Actual	FY13 Actual	FY14 Rev. Budget	FY15 Estimate
Financial & Administrative Services:	_			
Town Manager's Account	\$91,751	\$96,026	\$97,674	\$97,100
Town Accountant:				
General Services	47,669	49,926	51,959	50,975
Audit Services	1,500	1,500	1,500	1,500
Treasurer-Collector	53,240	54,768	55,787	56,243
Finance Administration	41,643	42,186	44,327	44,116
Human Resouces	48,998	53,883	55,314	56,293
Town House Facilities	5,964	5,743	5,604	5,541
Subtotal	290,765	304,032	312,165	311,76
Natural Resource Protection:				
Planning	\$8,930	\$9,186	\$9,798	\$10,444
Natural Resources	\$18,629	\$19,241	\$19,787	\$19,795
Subtotal	\$27,559	\$28,427	\$29,585	\$30,239
Landscaping @ Substations:				
Parks & Trees	\$7,225	\$7,225	\$7,225	\$7,225
GIS Administrator:				
CPW Engineering	\$3,434	\$3,576	\$2,825	\$2,825
Accounting Adjustment	(\$20,693)	\$753	\$23,986	\$22,943
Total	\$308,290	\$344,013	\$375,786	\$375,000
Payment in Lieu of Taxes (PILOT)	\$380,000	\$385,000	\$447,800	\$458,650
Calendar Year of PILOT Payment	2011	2012	2013	2014

NET INCOME

Calendar Year:	2011	2012	2013	2014
	Actual	Actual	Estimated	Budgeted
Statement of Net Income:				
Operating Revenues	\$27,040,652	\$27,848,933	\$ 27,197,264	\$ 25,107,76
Less Operating Expenses	_(25,793,559)	(26,283,418)	(23,771,519)	(22,894,24
Operating Income	1,247,093	1,565,515	3,425,745	2,213,51
Plus:				
Interest & Dividend Income	\$ 54,672	\$ 41,773	\$ 19,724	\$ 20,00
Underground Surcharge	380,111	358,490	358,366	376,61
Conservation & Renewable Energy	131,772	124,272	131,922	130,56
M&J Income	146,065	138,689	110,277	100,00
Power Factor Penalty	-	-	-	
Audit Adjustment	1,165			
Non-Operating Income Subtotal	712,620	663,224	620,289	627,17
Gross Income	1,959,713	2,228,739	4,046,034	2,840,69
Less Non-Operating Expense:				
Interest and Amortization (accrued expense)	(160,922)	(167,288)	(114,309)	(182,76
Other Expenses (audit adjustment)	11,980	(161,000)	15,725	(65
Subtotal	(148,942)	(328,288)	(98,584)	(183,41
Net Income	\$ 1,810,770	\$ 1,900,451	\$ 3,947,450	\$ 2,657,28
Transfers Out - Pilot	(380,000)	(385,000)	(447,800)	(458,65
Change in Net Assets	1,430,770	1,515,451	3,499,650	2,198,63

AVAILABLE RESOURCES

Resources Available from Current Operations for Replacement and Renewal of Plant
(Not including Issuance of Debt):

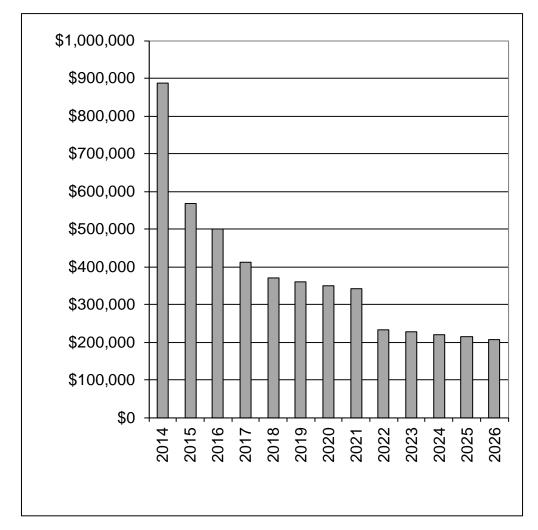
Calendar Year:	2011 Actual	2012 Actual	2013 Estimated	2014 Budgeted
From:	Actual	Actual	LStilllated	Duugeteu
Depreciation Expense	\$1,445,356	\$1,475,394	\$1,592,828	\$1,631,778
Net Income	1,810,770	1,900,451	3,947,450	2,657,284
Subtotal	3,256,126	3,375,845	5,540,278	4,289,062
Less:				
Debt Principal Repayment	(765,000)	(760,000)	(760,000)	(760,000)
Payment in Lieu of Taxes	(380,000)	(385,000)	(447,800)	(458,650)
Subtotal	(1,145,000)	(1,145,000)	(1,207,800)	(1,218,650)
Net from Current Operations Available for Capital Purposes:	\$2,111,126	\$2,230,845	\$4,332,478	\$3,070,412
Cost of Plant @ Year End: (Utility Plant in Service)	\$49,863,659	\$53,778,134	\$55,076,457	\$56,526,356
Net from Current Operations				
as % of Cost of Plant:	4.2%	4.1%	7.9%	5.4%
Cost of Plant:				
Beginning	48,862,397	49,863,659	53,778,134	55,076,457
Additions	1,337,589	4,167,189	1,441,523	2,456,000
Less Retirements	(336,326)	(252,713)	(143,200)	(1,006,101)
Ending	\$49,863,659	\$53,778,134	\$55,076,457	\$56,526,356

RATE OF RETURN

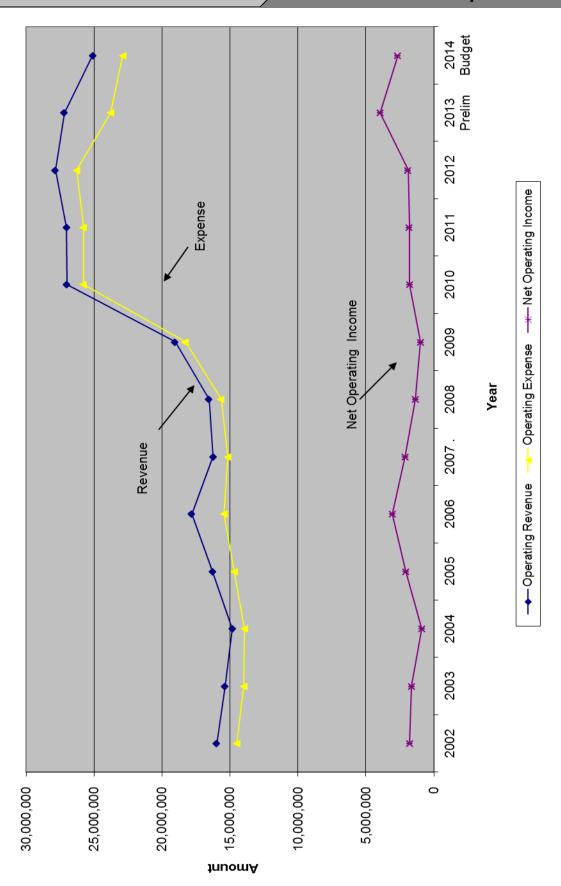
Rate of Return Analysis: Calendar Year: 2011 2012 2013 2014 Actual Actual Estimated Budgeted Net Income \$1,810,770 \$1,900,451 \$3,947,450 \$2,657,284 Less Debt Principal Repaid (accrual basis) (670,417) (634, 167)(760,833)(760,000)**Net Return** 1,140,353 1,266,284 3,186,617 1,897,284 Cost of Plant @ Year End \$49,863,659 \$53,778,134 \$55,076,457 \$56,526,356 % Return (Net Return ÷ Cost of Plant) 2.4% 2.3% 5.8% 3.4%

LIGHT FUND DEBT SERVICE

Calendar			
Year	Principal	Interest	Total
2014	760,000	127,574	887,574
2015	460,000	107,894	567,894
2016	405,000	95,700	500,700
2017	330,000	81,450	411,450
2018	300,000	71,250	371,250
2019	300,000	59,250	359,250
2020	300,000	50,250	350,250
2021	300,000	41,250	341,250
2022	200,000	32,250	232,250
2023	200,000	26,250	226,250
2024	200,000	20,250	220,250
2025	200,000	13,750	213,750
2026	200,000	7,000	207,000
Totals	\$4,915,000	\$891,817	\$5,806,817



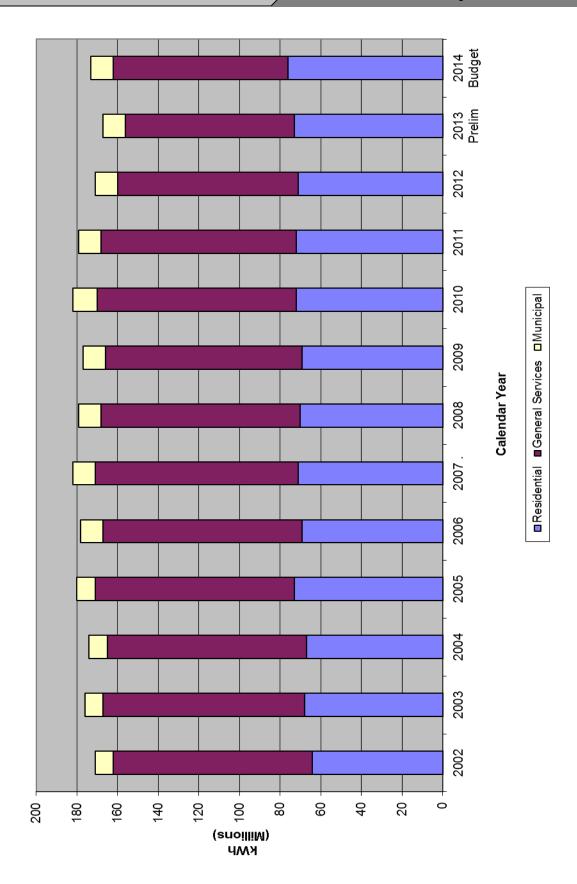
Light Fund Revenue, Expense, and Net Income

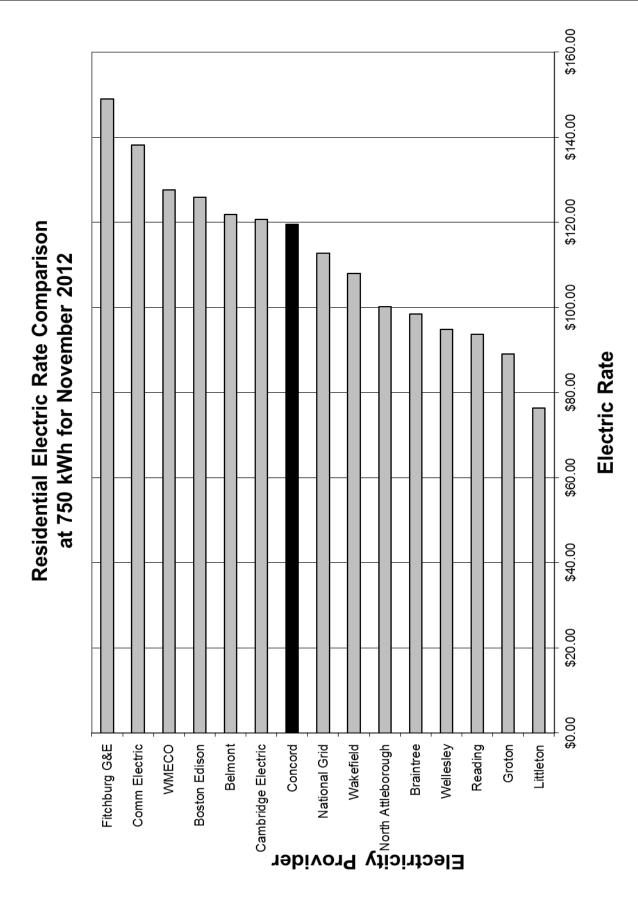


Concord Municipal Light Plant kWhs Sold, Revenues, Expenses, Operating Income, & Net Income CY2002-2014

<u>Calendar Year</u>	kW Residenti al	hs Solo General Services	d (Millior Municipal	1S) Total	Operating Revenues	Operating Expenses	Operating Income	Net Income
2002	64	98	9	171	15,975,614	14,495,030	1,480,584	1,779,995
2003	68	99	9	176	15,366,040	13,976,203	1,389,837	1,644,664
2004	67	98	9	174	14,825,982	13,945,302	880,680	887,184
2005	73	98	9	180	16,298,994	14,690,064	1,608,930	2,066,462
2006	69	98	11	178	17,829,056	15,433,837	2,395,219	3,052,974
2007 .	71	100	11	182	16,248,165	15,155,781	1,092,384	2,123,283
2008	70	98	11	179	16,548,218	15,647,921	900,297	1,351,285
2009	69	97	11	177	19,036,385	18,302,574	733,811	986,123
2010	72	98	12	182	27,001,169	25,793,559	1,207,610	1,794,797
2011	72	96	11	179	27,040,652	25,793,559	1,247,093	1,810,770
2012	71	89	11	171	27,848,933	26,283,418	1,565,515	1,900,451
2013 Prelim	73	83	11	167	27,197,264	23,771,519	3,425,745	3,947,450
2014 Budget	76	86	11	173	25,107,768	22,894,249	2,213,519	2,657,284

Concord Municipal Light Plant Electricity Sales

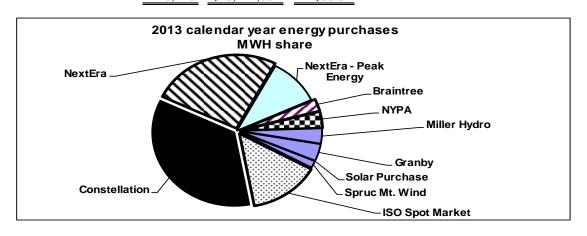




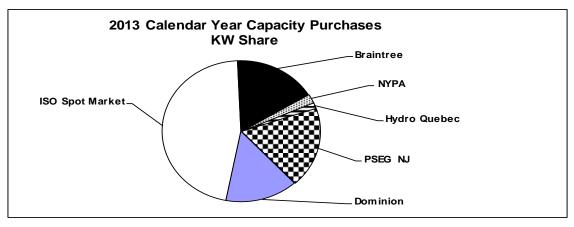
Light Fund Energy Supply

2013 Energy Purchases

			\$ per	Share of	Share of
	MWH	Cost	MWH	MWH	cost
ISO Spot Market	24,662	\$2,266,261	\$91.89	14.03%	21.16%
Constellation	61,571	\$3,185,039	\$51.73	35.03%	29.73%
NextEra	45,128	\$2,545,500	\$56.41	25.67%	23.76%
NextEra - Peak Energy	18,128	\$1,004,366	\$55.40	10.31%	9.38%
Braintree	4,733	\$712,349	\$150.51	2.69%	6.65%
NYPA	6,401	\$156,219	\$24.41	3.64%	1.46%
Miller Hydro	5,861	\$341,967	\$58.35	3.33%	3.19%
Granby	6,549	\$286,755	\$43.79	3.73%	2.68%
Solar Purchase	52	\$2,963	\$56.98	0.03%	0.03%
Spruc Mt. Wind	2,693	\$210,515	\$78.17	1.53%	1.97%
	175.778	\$10.711.934	\$60.94		



	2013 Capacity Purchases					
	KW	Cost	\$ per KW	Share of KW	Share of Cost	
ISO Spot Market	301,290	\$993,697	\$3.30	46.26%	27.65%	
Braintree	110,472	\$1,405,135	\$12.72	16.96%	39.10%	
NYPA	13,704	\$51,813	\$3.78	2.10%	1.44%	
Hydro Quebec	8,685	\$58,419	\$6.73	1.33%	1.63%	
PSEG NJ	120,000	\$516,060	\$4.30	18.42%	14.36%	
Dominion	97,200	\$568,620	\$5.85	14.92%	15.82%	
	651,351	\$3,593,744	\$5.52			



Light Fund – Telecommunications

Overview

Mission Statement

The mission of Telecommunications Division within Concord Municipal Light Plant is to supply reliable and cost effective telecommunications services, in a responsible and courteous manner, which meets the current and future needs of our customers.

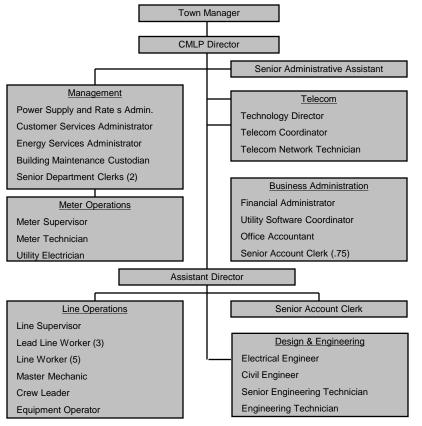
Telecommunications Contents

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Revenues & Expenditures	p. 20

Telecommunications Highlights

- . The 2013 Concord Town Meeting authorized CMLP to borrow up to \$1,000,000 to fund the expenses associated with expansion of telecommunication activity to include commercial and residential Internet services.
- Pilot and pre-production programs for commercial service offerings have demonstrated the feasibility of delivering reliable data service over the same infrastructure that was constructed for the Smart Grid to other customers and the municipality.
- In 2014, Internet service is being made generally available to both commercial and residential customers of CMLP for the first time.
- The business plan for 2014 anticipates that two to three hundred customers will begin to receive Internet Service from CMLP in the current year. Installation activity is expected to grow as the year progresses

Expenditure Summary											
	FY1	1 Actual	FY1	FY12 Actual		FY13 Budget		FY14 Proposed			
Operating Income	\$	1	\$	-	\$	(43,648)	\$	(53,250)			
Startup	\$	-	\$	-	\$	(16,988)	\$	6,750			



Description

The Telecommunications Division was established within the Concord Municipal Light Plant to provide telecommunication services to the electric utility and support the Town's municipal operations while also offering services to Concord residents and businesses.

In 2013, CMLP re-staffed the Telecommunications division, hiring a Technician and Coordinator. The Telecommunication division is managed by the Town's CIO who also manages the information Technology Department.

A result of this management structure is that both the Town's municipal operations and CMLP's electrical operations can benefit from having in-house networking resources.

Business administration, customer service for the Telecommunication Division is shared with Electric operations. Engineering and Line Operations also performs some of the outside plant management.

Light Fund - Telecommunications

Program

Telecommunications Revenue

In 2014 the total telecommunications revenue will depend on a number of factors that are difficult to predict with certainty.

Revenue will come from the following activities:

- Installation of fiber optic service to homes and business.
- Monthly fees for High Speed Internet Service
- Monthly fees private data service.

<u>Telecommunications Programs</u>

There has long been a need for the Light Plant, Town Government and the other enterprises to have access to high quality telecommunications capability. Public Safety, Education and Administration are all increasingly dependent on data and data communications. The Light Plant's investment in fiber laid the foundation for a number projects which contribute to efficient and effective operations. The Telecommunication Division provides that necessary operational capability to utilize the network. There are three main program areas.

Smart Grid Infrastructure

CMLP's Smart Grid Infrastructure is a major investment in technology that supports the distribution of electricity to the customer. Advanced meters, load control, customer engagement applications have been deployed. Each of these application relies on telecommunications to function. It is the responsibility of Telecommunications division to deploy and maintain this network. This network contains over 600 devices and is capable of real time communications with our customers throughout the CMLP electric service area.

In 2013, an advanced outage management system was deployed by CMLP. This system will keep customer informed in the event of a major service impacting incident on the electrical network. The deployment required coordination and cooperation between Engineering, Telecommunications and Information Technology.

The fiber network is also being leveraged to support the Water and Sewer enterprises as well. Command and control of this important infrastructure is more reliable, comprehensive and secure as a result of this investment.

Broadband Services

At the 2013 Annual Town Meeting residents approved a borrowing authorization which enables CMLP to finance the startup and initial operating costs of retail broadband telecommunication services. The action ensured that neither taxes or electric rates would be used pay for the startup. Instead, revenue from telecommunications usage will be used to repay the initial expenses. As the broadband revenue grows it will help to reduce the burden on the electric operations of maintaining the fiber network alone.

By making an the incremental investment to create general retail Telecommunication offerings, CMLP realizes a number of operational benefits while also providing direct benefits to the community as a whole. The initial business plan is focused on High Speed Internet service. By providing a fiber optic based internet service, CMLP is filling a gap in available service to community while generating a revenue stream that helps to pay for the fiber investment and the telecommunications staff. Citizen survey data (next page), indicates that interest is high.

Municipal Operations Support:

The telecommunications needs of Town Departments is constantly evolving. Separately, neither the Town or the Light Plant could realistically afford to have in-house resources to help meet the requirements. The resulting dependency on vendors and suppliers would be costly and responsiveness would also be reduced. The costs of for providing municipal support for the data and voice network are recovered by the Telecommunication Division through labor sharing and agreements that benefit both the Town and the Light Plant. Management by the CIO enables effective coordination and given the close interrelationship between Information Technology and Telecommunications

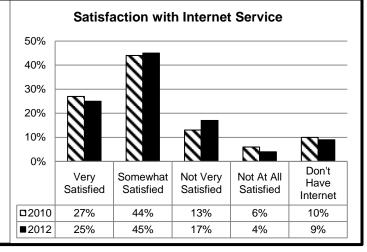
Light Fund - Telecommunications

Survey

Satisfaction with Internet Service

2010-12 Survey Question- "You may have internet service provided to your home by a private company. How would you rate your satisfaction with this service?

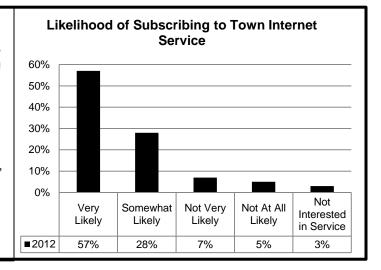
Results- The 2012 results are similar to those of 2010. Although a majority of residents are "very satisfied" or "somewhat satisfied", there remains over 20% of the respondents who are "not very satisfied" or "not at all satisfied".



Potential Subscription to Town Internet Service

2012 Survey Question- "If the Town were to offer a high-speed internet service to your home, how likely would you be to subscribe to this service?"

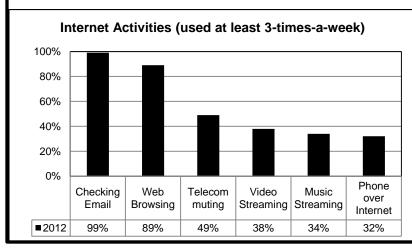
Results- 57% of respondents said that they would be "very likely" to subscribe. More men said they would be "very likely" to subscribe than women and the respective percentages are 64% and 51%. In terms of age the number 72% for those under 45, 72% between 45 and 54, 53% between 55 and 64, and 48% 65 and over. Of those respondents who have children in the household 72% replied that they would be "very likely" to subscribe. It should be noted that no price point for the possible internet service was given when the question was asked.

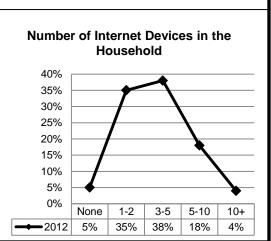


Internet Activity & Devices

2012 Survey Questions- Internet activities used at least three-times-a-week, and "How many computers and internet devices do you have in your home?

Results- Concord residents use internet mostly for checking email and web browsing. Most households had between 1 and 5 internet devices. As expected, the response correlated with whether there are children in the household; 83% of those with children have 3 or more devices while 51% of those without children have 2 or less devices.





TELECOMMUNICATIONS OPERATING REVENUES

	2011	2012	2013	2014
	Actual	Actual	Actual	Budget
<u>Operations</u>				
Residential & Commercial Fees	\$ -	\$	5,087 \$	131,250
Municipal Fees	-		3,000	27,000
Other	-	-	=	-
Operating Revenues Total	\$ - \$	- \$	8,087 \$	158,250

TELECOMMUNICATIONS OPERATING EXPENSES

	2011	2012	2013	2014
_	Actual	Actual	Actual	Budget
Operations				_
Personnel Expenses	\$ -	\$ -	\$ 11,200	\$ 70,000
Purchased Services	-	-	25,257	97,000
Supplies & Materials	-	-	10,999	37,500
Other Charges & Expenses	-	-	1,020	-
Subtotal	\$ -	\$ -	\$ 48,476	\$ 204,500
Investments & Startup Activities				
Personnel Expenses	\$ -	\$ -	\$ 33,601	\$ 70,000
Purchased Services	-	-	\$ 18,273	\$ 100,000
Supplies & Materials	-	-	\$ -	\$ 150,000
Other Charges & Expenses	-	-	\$ -	\$ -
Subtotal	\$ - '	\$ -	\$ 51,873	\$ 320,000
Total Operating Expenses	\$ -	\$ -	\$ 100,349	\$ 524,500

TELECOMMUNICATIONS CAPITAL EXPENSES

		2011		2012		2013		2014
_		Actual		Actual		Actual		Budget
_								
		-		-	\$	3,259		7,000
Subtotal	\$	-	\$	-	\$	3,259	\$	7,000
Activities								
	\$	-	\$	-	\$	900	\$	15,000
		-		-		-		15,000
_		-		-	\$	20,567	\$	90,000
Subtotal	\$	-	\$	-	\$	21,467	\$	120,000
Expenses	\$	-	\$	-	\$	24,726	\$	127,000
	Activities Subtotal		Subtotal \$ - Subtotal \$ - Subtotal \$ -	Subtotal \$ - \$ Activities Subtotal \$ - \$	Actual Actual	Actual Actual	Actual Actual Actual	Actual Actual Actual

TELECOMMUNICATIONS CASH FLOW

	2011	2012	2013	2014
_	Actual	Actual	Actual	Budget
<u>Operations</u>				
Operating Revenues	\$ -	\$ -	\$ 8,087	\$ 158,250
Less Operating Expenses	-	-	(48,476)	(204,500)
Less Capital Expenditures	\$ -	\$ -	\$ (3,259)	\$ (7,000)
Operations Cash Flow	\$ -	\$ -	\$ (43,648)	\$ (53,250)
Investments & Startup Activities				
Short-Term Borrowing	\$ -	\$ -	\$ 100,000	\$ 500,000
Less Operating Expenses	-	-	(51,873)	(320,000)
Less Capital Expenses	-	-	(21,467)	(120,000)
Startup Cash Flow	\$ -	\$ -	\$ 26,660	\$ 60,000
Total Cash Flow	\$ -	\$ -	\$ (16,988)	\$ 6,750